



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,897	07/20/2004	Shunichi Sekiguchi	1163-0511PUS1	8551

2292 7590 06/24/2008
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
----------	--------------

2621

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

06/24/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/501,897	Applicant(s) SEKIGUCHI ET AL.	
	Examiner Andy S. Rao	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/5/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/5/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Panusopone et al., (hereinafter referred to as “Panusopone”).

Panusopone discloses a video data converter for converting input video coded data based on a first video coding scheme to video coded data based on a second video coding scheme (Panusopone: figures 4A-4B), said first video coding scheme carrying out coding by dividing each frame of a video signal into specified segments and by selecting coding parameters including a motion vector for each specified segment (Panusopone: column 6, lines 45-55), and said second video coding scheme carrying out coding by dividing each frame of the video signal into specified segments and by selecting coding parameters for each specified segment (Panusopone: column 5, lines 20-35), said video data converter comprising: a motion vector mapping section for generating a motion vector candidate to be used for each specified segment of the second video coding scheme from the motion vector in the coding parameters of each specified segment of the first video coding scheme (Panusopone: column 14, lines 55-67; column 15, lines 1-42) and a coding parameter deciding section for deciding a motion vector to be used in the second video coding scheme from among the generated motion vector candidates in the second video coding scheme according to a prediction error estimation value that estimates a prediction efficiency when using the motion vector candidates and according to a value that estimates a motion vector rate when using the motion vector candidates (Panusopone: column 19, lines 15-47), as in claim 1

Regarding claim 2, Panusopone discloses wherein said motion vector mapping section generates the motion vector candidates by a number of types of motion prediction that are possessed by the second video coding scheme (Panusopone: column 14, lines 6-67; column 15, lines 1-42), as in the claim.

Regarding claim 3, Panusopone discloses a coding mode estimator for estimating a coding mode for each of the specified segments in the second video coding scheme according to a coding mode in the coding parameters of each of the specified segments in the first video coding scheme (Panusopone: column 15, lines 43-64), wherein said coding parameter deciding section makes a decision as a coding mode to be used in the second video coding scheme by selecting, when deciding the coding mode, one of two methods of forcedly deciding the coding mode to be used in each of the specified segments in the second video coding scheme according to the coding mode estimated by said coding mode estimator (Panusopone: column 6, lines 1-16), and of deciding the coding mode to be used in each of the specified segments in the second video coding scheme according to the prediction error estimation value and an estimated rate of the motion vector (Panusopone: column 19, lines 25-55), as in the claim.

Regarding claim 4, Panusopone discloses a spatial resolution converter for down-converting spatial resolution of the video data coded in accordance with the first video coding scheme to half resolution in both horizontal and vertical directions (Panusopone: column 19, lines 45-67; column 20, lines 1-20), as in the claim.

Regarding claim 5, Panusopone discloses a temporal resolution converter for implementing temporal resolution of the video data coded in accordance with the first video coding scheme by decimating a frame (Panusopone: column 18, lines 50-67) not used for inter-frame motion prediction (Panusopone: column 5, lines 60-67; column 6, lines 1-7), as in the claim.

Regarding claim 6, Panusopone temporal resolution converter for implementing temporal resolution of video data coded in accordance with the first video coding scheme

Art Unit: 2621

by decimating frames (Panusopone: column 18, lines 55-65) including a frame used for inter-frame motion prediction (Panusopone: column 5, lines 60-67; column 6, lines 1-10), wherein said motion vector mapping section (Panusopone: column 15, lines 40-67), when the frame used for the inter-frame motion prediction is decimated, decides a motion vector candidate to be used by the second video coding scheme by using the motion vector in the frame decimated (Panusopone: column 16, lines 10-20), and said coding parameter deciding section, when the frame used for the inter-frame motion prediction is decimated, decides the coding mode to be used in the second video coding scheme by using the coding mode in the frame decimated (Panusopone: column 6, lines 35-45), as in the claim.

Regarding claim 7, Panusopone discloses that first video coding scheme is an MPEG-2 video coding scheme specified in ISO/IEC 13818-2, and said second video coding scheme is an MPEG-4 video coding scheme specified in ISO/IEC 14496-2 (Panusopone: column 1, lines 45-67), as in the claim.

Panusopone discloses a video data converting method (Panusopone: column 3, lines 45-55) of converting input video coded data based on a first video coding scheme to video coded data based on a second video coding scheme (Panusopone: column 1, lines 45-67), said first video coding scheme carrying out coding by dividing each frame of a video signal into specified segments and by selecting part of coding parameters for each specified segment (Panusopone: column 6, lines 45-55), and said second video coding scheme carrying out coding by dividing each frame of the video signal into specified segments and by selecting part of coding parameters for each specified segment (Panusopone: column 5, lines 20-35), said video data converting method comprising the

Art Unit: 2621

steps of: generating a motion vector candidate to be used for each specified segment of the second video coding scheme from a motion vector in the coding parameters of each specified segment of the first video coding scheme (Pamusopone: column 14, lines 55-67; column 15, lines 1-42); and deciding a motion vector to be used in the second video coding scheme from among the generated motion vector candidates in the second video coding scheme according to at least one of a prediction error estimation value that estimates a prediction efficiency when using the motion vector candidates and according to a value that estimates a motion vector rate when using the motion vector candidates (Pamusopone: column 19, lines 15-47), as in claim 8.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Golin discloses a motion vector extrapolation for transcoding video sequences. Adolph discloses a method and apparatus for transcoding bit streams with video data.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
/Andy S. Rao/
Primary Examiner, Art Unit 2621
June 18, 2008